

Remarks

Claims 1-24 are pending in the present application. By this reply, claims 21-24 have been added. Claims 1, 10 and 21-23 are independent.

The claims have been amended to correct informalities and to clarify the invention according to U.S. practice. These modifications do not add new matter.

Claim Objection

Claims 2, 8, 11 and 19 have been objected to because claims 2 and 11, and claims 8 and 19 recite two examples of a location of a TFT. These claim features are fully supported by the disclosure. For example, see paragraph [0048] and [0049] disclosing that a TFT and a passivation layer are formed on the insulating layer 34, and then the pixel electrode 35 is formed on the passivation layer (claims 2 and 11); and in another embodiment, forming the TFT between the substrate 31 and the color filter layer 32 as discussed in paragraph [0056] of the specification (claims 8 and 19). Accordingly, the features recited in claims 2, 8, 11 and 19 are consistent with the original disclosure and are clearly recited. Accordingly, the objection is improper and should be withdrawn.

Allowable Subject Matter

Applicants note the Examiner's indication that claims 6 and 18 are objected to, but allowable if rewritten in independent form. Accordingly, claims 6 and 18 have been rewritten in independent form and are presented herewith as new independent claims 21 and 22, respectively. Accordingly, claims 21 and 22 should be allowed.

35 U.S.C. § 103 Rejection

Claims 1-2, 5, 7-10, 11, 13-14, 16 and 19-20 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Sakamoto et al. (U.S. Patent No. 6,650,390) in view of Song et al. (U.S. Patent No. 6,822,723). Claims 3-4, 12 and 17 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Sakamoto et al. and Song et al. as applied to the claims above, and further in view of Fukumoto et al. (U.S. Patent No. 6,583,837). Claim 15 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over Sakamoto et al. and Song et al. as applied to the claims above, and further in view of Ishihara et al. (U.S. Patent No. 5,263,888). These rejections, insofar as they pertain to the presently pending claims, are respectfully traversed.

Regarding independent claims 1 and 10, the Examiner states that Sakamoto et al. discloses a color filter layer 418 having an opening on the first substrate 411 as shown in Figure 4, but does not teach or suggest a protrusion on the second substrate and corresponding to the opening of the color filter layer, as required by claims 1 and 10. To overcome this deficiency, the Examiner relies on Song et al. showing a protrusion 31 corresponding to a groove 711 as shown in Figure 2. Thus, the Examiner alleges that it would have been obvious to one skilled in the art to arrange the opening in the color filter layer of Sakamoto et al. to correspond to a protrusion on a substrate, as required by the claims. Applicants respectfully disagree.

In Sakamoto et al., a multi-domain function of the LCD device is achieved by providing an opening 425 in the pixel electrode 424 formed on the lower substrate 411. Similarly, Song et al. discloses providing an opening 211 in the

pixel electrode 21, and the protrusion 31 in the opening 211 of the pixel electrode 21. That is, neither Sakamoto et al. nor Song et al. discloses an opening of the color filter layer that corresponds to a protrusion on the second substrate. In Sakamoto et al., as correctly acknowledged by the Examiner, there is no protrusion on the second substrate that corresponds to the opening of the color filter layer 418. In fact, since Sakamoto et al.'s opening 425 in the pixel electrode provides the multi-domain function, there would be no reason or motivation to utilize the opening of the color filter layer 418 for the multi-domain function and/or to provide a protrusion on the second substrate that corresponds to the opening of the color filter layer 418. Similarly, Song et al.'s protrusion 31 is provided in the pixel electrode 21 formed on the lower substrate. Thus, at best, the combination of Sakamoto et al. and Song et al. teaches providing both the protrusion and the opening on one substrate.

In clear contrast, in Applicants' embodied invention as shown in, e.g., Figure 3, an opening 33 is provided in the color filter layer 32 provided on a first substrate 31, and a protrusion 39 is provided on a second substrate 37 and corresponds to the opening 33 of the color filter layer 32. In this regard, the pixel electrode 35 does not provide any opening that corresponds to the protrusion 39.

Accordingly, even if the references are combinable, assuming *arguendo*, the combination of references would fail to teach or suggest at least the above-noted features corresponding to the features as recited in independent claims 1 and 10.

Furthermore, neither Fukumoto et al. nor Ishihara et al. correct these deficiencies in the combination of Sakamoto et al. and Song et al. since

Fukumoto et al. is relied on for teaching the material of the protrusion and Ishihara et al. is relied on for teaching a liquid crystal dropping method.

Accordingly, independent claims 1 and 10 and their dependent claims (due to their dependency) are clearly patentable over the applied references, and thus the rejections are improper and must be withdrawn.

New Claims

As discussed above, new claims 21 and 22 are allowable since they correspond to allowable claims 6 and 18 rewritten in independent form. Similarly, claims 23 and 24 are allowable since independent claim 23 contains similar subject matter as claim 1. Accordingly, indication of allowance of new claims 21-24 is respectfully requested.

Conclusion

For the foregoing reasons and in view of the above clarifying amendments, the Examiner is respectfully requested to reconsider and withdraw all of the objections and rejections of record, and to provide an early issuance of a Notice of Allowance.

Should there be any outstanding matters which need to be resolved in the present application, the Examiner is respectfully requested to contact Esther H. Chong (Registration No. 40,953) at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and further replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,

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